

MANUFACTURING EXTENSION
PARTNERSHIP
NATIONAL ADVISORY BOARD
ANNUAL REPORT 1998



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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

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BOARD MEMBERS

The Board consists of nine members with backgrounds in industrial extension and is appointed by the Director of NIST to serve terms ranging from two to three years. The members bring a variety of manufacturing and manufacturing related backgrounds to the Board. Their experience and expertise includes in-depth representation of small and large manufacturing, labor, academia, economic development, consulting and state government. This mix will bring to MEP the outside advice critical to maintain and enhance the program's focus on the customer—America's smaller manufacturers.

JAY BRANDINGER

President and CEO

JA Brand Associates Inc.

Pennington, New Jersey



Dr. Brandinger has served on the Science and Technology Council of the States, a working group of science and technology advisors to governors sanctioned by the National

Governors Association. As the state partner, he monitored the creation of the manufacturing extension center in New Jersey. With over forty-years in the electronics industry, Brandinger has recently started his own consulting company.

ROXIANNE DOWNING

CEO, Chairman of the Board

Qualis, Inc.

Des Moines, Iowa



Qualis, Inc. is a manufacturer of OTC topical pharmaceuticals, personal care and chemical specialty products. Ms. Downing, who is also co-founder of Qualis, Inc., sat on the Board

of the Iowa Manufacturing Technology Center, the local MEP Center in Iowa; and serves on the Iowa Association of Business and Industry and the Youth Homes of Mid-America.

MARÍA ESTELA DE RÍOS

Vice-President of Corporate Affairs

ORION International Technologies, Inc.

Albuquerque, New Mexico



Ms. de Rios has over 25 years of experience in general business and in government and commercial contracting. Currently she is executive vice president of Orion International

Technologies, which is a research and development engineering company specializing in nuclear and environmental engineering services, advanced technologies, and data and control systems. She currently sits on the Governor's Business Advisory Council and the Board of Directors for the Industry Network Corporation, the local MEP Center in New Mexico.

IRWIN FELLER

Director, Institute for Policy Research and Evaluation, Professor of Economics at The Pennsylvania State University



Dr. Feller, director, Institute for Policy and Research and Evaluation at the Pennsylvania State University, has extensive experience in policy research and evaluation. Dr.

Feller's research has included the economic and political aspects of state technology development programs, the evaluation of these programs and the roles of universities in national and regional economic development. He has served as consultant to a number of organizations including the White House Office of Science and Technology Policy, the National Governors' Association, and the National Conference of State Legislatures. In 1996, Dr. Feller was appointed as an American Society of Mechanical Engineers (ASME) International, State Government Fellow in Pennsylvania.

MAURICE LEE, JR.

Chairman of the Board
Smokaroma, Inc.
Boley, Oklahoma



Smokaroma, Inc. is a small manufacturing firm producing a commercial cooker and fixtures for restaurants. In addition to his years of experience in manufacturing firms, Mr. Lee serves as a member of

the Oklahoma District Export Council and is past chair of the Board for the Oklahoma Alliance for Manufacturing Excellence, MEP's local Center in Oklahoma.

EDWARD NOHA

Chairman of the Board
CNA Financial Corporation
Chicago, Illinois



Prior to his current position, Mr. Noha served as chairman of the board and chief executive officer of the CNA Insurance Companies. Under his leadership, CNA rose to become one of the

strongest and largest multi-line insurance organizations in the U.S. In 1992, Mr. Noha was appointed chairman of the Chicago Economic Development Commission by Mayor Richard M. Daley. In this role, he established the primary goal of job retention and expansion leading to over 20,000 jobs in the last three years. He also organized the proposal for the Chicago Manufacturing Center, one of MEP's local Illinois Centers. He is currently the Chairman of the MEPNAB.

JAMES QUILLIN

Senior Advisor for Economic Development
California Conference of Machinists
Alamo, California

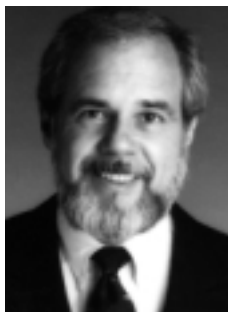


Mr. Quillin serves on the board of directors for Logic By Design, Inc., an on-line marketing and commerce firm. He has served as executive secretary and treasurer for the California Conference

of Machinists, was appointed by Governor Edmond G. Brown as commissioner of labor and served as president and representative of District Lodge 727 – the International Association of Machinists and Aerospace Workers in California. He currently sits on the board of the California Manufacturing Technology Center, one of the local MEP Centers in California.

LAWRENCE RHOADES

President
Extrude Hone Corporation
Irwin, Pennsylvania



Extrude Hone Corporation is a leader in the field of non-traditional machining, finishing, and measurement. In 1989, Mr. Rhoades was named the first Small Business

Exporter of the Year by the Commonwealth of Pennsylvania and currently serves as chairman of the board for the Southwestern Pennsylvania Industrial Resource Center, one of the MEP affiliates in Pennsylvania. In that capacity, he has testified before the House Science Committee on behalf of the MEP system.

WILLIAM WEBBER

Interim Director of
P.T. Cam
Greensboro, North Carolina



In Mr. Webber's current role as a private business advisor and consultant, he serves as interim director of PT CAM a non-profit training firm specializing in shop-floor training using the

most up-to-date metal working equipment. In addition to his background in large manufacturing facilities such as the Raymond Corporation, Allegheny International, Inc. and General Electric, Webber has an extensive background in strategic planning and operations.

FOREWORD

The September 1998 meeting marked our one-year anniversary. This occasion was marked by the creation of the Board's first subcommittee. This subcommittee was established to handle a request by Congress to look at the MEP evaluation process and provide a report on how it is working. The subcommittee is in the midst of its research and will report to Congress on its findings in 1999.

This year MEP had major accomplishments and impact to report. At the September 1998 meeting, MEP Director Kevin Carr provided an overview of the future of MEP, which was strongly endorsed by the Board.

It was reported that the MEP network of extension centers has served nearly 70,000 small and medium-sized manufacturers since the program's inception in 1988. The four top industries served were industrial machinery (16%), fabricated metals (15%), electronics (9%), and rubber and plastics (8%).

As reported, over 25 percent of MEP clients have less than 20 employees. Twenty-seven percent of clients served between July and December 1997 had less than 19 employees; 19 percent had 20-49 employees; 17 percent, 50-99 employees; 21 percent, 100-249 employees; and 15 percent had more than 250 employees.

We are committed to the training of MEP's manufacturing specialists. That is where the interaction with America's smaller firms occurs. We were pleased to see that the manufacturing specialists are beginning to generate more revenue than the previous year. These specialists created \$18,320 in revenue between July and December 1997 compared to the \$12,649 the previous year. In the six-month period ending on December 31, 1997, total fees for services were \$20.3 million, compared with \$11.5 million for the same period in 1996. There has also been an increase of activities completed that used third party assistance, 39 percent compared to 23 percent the year before.

As with training the specialists, we see training and employee development as key to a successful small firm. We were delighted to see that the primary activities between the latest data period July – December 1997 were technical assistance, 61 percent; training and education, 25 percent; and assessments 14 percent. Short-term competitiveness indicators, which are based on project closure dates from June 1996 to May 1997, showed client impacts continue to increase. Company sales were \$187 million, labor savings of \$8.9 million, material savings of \$7.3 million, and inventory savings of \$25 million. Client investment in modernization totaled \$136 million. MEP estimates that 2,095 jobs were created and 3,011 jobs were retained as a result of MEP assistance.

Ray Kammer, director of NIST, shared with us that one of NIST's goals is to have one-third of MEP's funds come from NIST, one-third from the state and local sources, and one-third from fees-from services. Reports show that MEP Centers are moving toward this goal. As of December 31, 1997, 41 percent of total program funding came from NIST; 32 percent cash from state and local organizations; 16 percent from fees for service; and 11 percent from in-kind contributions. The state funding for MEP continues to fluctuate, while in-kind contributions from all sources remain low and continue to decrease.

While the Centers maintained its focus on assisting clients, MEP continued to work to remove Sunset. The Sunset provision prevents Centers from receiving funding after its sixth year of operation. Congress had been providing funding to the Centers over six years old since fiscal year 1996. We were delighted with the news that the Sunset provision was lifted by law. The permanent removal of sunset will enable us to work with MEP to focus on educating the states on the importance of stabilizing local funding as well.

In this year we have made great headway in meeting our 1998 stated goals to address the MEP program evaluation and data collection processes; to look at the variety of products and services Centers offer and analyze standard products and services the national system should produce like Y2K assessment tools, lean manufacturing and workforce development; to address how MEP can raise the awareness of its program with smaller firms; and to work with other programs with similar and complementary missions for example, the Minority Business Development Agency, Department of Labor and International Trade Assistance.

This Board continues to be committed and dedicated to assisting America's smaller manufacturers.

The Manufacturing Extension
Partnership
National Advisory Board

INTRODUCTION

THE ADVISORY BOARD CHARTER AND 1998 ACTIVITIES

The Manufacturing Extension Partnership National Advisory Board (MEPNAB) of the National Institute of Standards and Technology (NIST) was established by direction of the Secretary of Commerce in October 1996. The Board provides advice on programs, plans and policies; assesses the soundness of MEP plans and policies; evaluates current performance against MEP program plans; and functions in an advisory capacity.

The Board consists of nine members with backgrounds in industrial extension. All are appointed by the Director of NIST to serve two to three year terms.

The Board is required to hold three business meetings a year with MEP and NIST management where in-depth reports are given on the progress of the various projects being carried out in the program and the impact the program is having on America's over 380,000 smaller manufacturers. The Board is also kept up to date on the budget process as it works its way through Congress. This annual report covers the Board's meetings and activities. Meetings were held in January 1998, May 1998 and September 1998.

Other meetings may be called during the year as deemed necessary by the Chairman or at least one-third of the members. The Board this year moved to set up a subcommittee to take on the congressional request to have MEP submit a report to the Congress on a review of the MEP evaluation process. The MEPNAB subcommittee will meet separately from the annual meetings and work on this report. MEP and NIST management are active participants in the business meetings.

This year we were delighted to have one of our own Board members, Jay Brandinger serve as co-chair of the United States Innovation Partnership's (USIP) "Next Generation Manufacturing Extension Partnership Working Group." The USIP was created based on the need for increased cooperation between the states and the federal government on science and technology policy.

This working group of the USIP took a close look at assisting smaller manufacturers through extension programs and found that the MEP is a unique state-federal program focused on the modernization and competitiveness of smaller manufacturers that should be further strengthened. Governor Christie Whitman (R-NJ) presented the group's findings to the Governors, at the National Governors' Association (NGA) summer meeting in August 1998. The endorsement of the USIP Working Group's findings by the Governors was a large boost for the MEP program this year and the

Board is very pleased with the recognition that MEP is a viable program that works.
(Read the Report in its entirety on the NGA web site ---
<http://www.nga.org/EconDev/MEP1998.htm>)

The Board summarizes its findings each year in an annual report that is submitted to the Director of NIST and is transmitted to the Secretary of Commerce. The report covers the Board's discussion of issues that affect the MEP and its nationwide network of Centers.

MAJOR ISSUES COVERED IN 1998

The Board delved into a number of issues affecting the MEP and its nationwide network of Centers in fiscal year 1998. Below are the summaries and major findings of the Board in each of these areas.

- MEP's VISION AND STRATEGIC PLAN
- THE UNITED STATES INNOVATION PARTNERSHIP
- EVALUATION
- SYSTEM IMPACTS
- WORKFORCE DEVELOPMENT
- SUPPLY CHAINS: ISSUES FOR SMALLER MANUFACTURERS
- Y2K INITIATIVE
- LEAN MANUFACTURING
- INTERNATIONAL SERVICES
- NATIONAL MARKETING EFFORT

MEP's VISION AND STRATEGIC PLAN

Ray Kammer, sworn in as the director of NIST on November 20, 1997, welcomed the Board at our January 1998 meeting and shared his vision of the Manufacturing Extension Partnership. His major goal for the MEP program was the "elimination of the Sunset on the MEP Centers." In addition, he wanted the Board to explore ways for the knowledge, resources and research within the NIST labs to be transferred to smaller manufacturers to help increase their competitiveness.

The Board strongly agreed that the Sunset needed to be eliminated to strengthen the national system and build even stronger, more stable relationships with the states. We also agreed that better ways should be found to tap into the knowledge at the NIST labs and get that knowledge to the Centers. The Board sees that as the Centers grow and get further into the business of manufacturing, there will be a great need for manufacturing specialists to continually upgrade some very high-tech and specific skills to service their clients.

We also had the opportunity this year to hold our September meeting at the Department of Commerce in Washington D.C and to meet with Gary Bachula, Acting Undersecretary for Technology, Technology Administration, Department of Commerce. He relayed to us that our "input and leadership was very much appreciated by the Department," and thanked us for "making

MEP a more responsive organization." We are aware that Bachula has been a strong advocate of the MEP program for a number of years and thank him for his dedication. We were pleased to have this opportunity to share our thoughts with him on MEP.

We had a long discussion on the trends toward globalization and the rapid innovation of firms and how this effects smaller firms. Smaller manufacturers need to focus on capital investment, labor, and technology to keep competitive. We concur with Bachula that "MEP has a significant role in these areas by enabling firms to gain the knowledge and experience to become globally competitive."

Specifically, we agree with Bachula's statement that smaller firms face unique challenges in both accessing financing and worker training. The Board applauds his position that delivering training to workers via consortia is beneficial in the workplace and as a cost saving policy. Bachula informed us that there are bills in the 105th Congress that would provide the funding necessary to be a catalyst to begin these partnerships.

We have a strong interest in worker training and workforce development and look forward to working with MEP in this area.

Kevin Carr, director MEP, provided the Board with a very exciting update on the MEP strategic plan. The Board was very interested in the results of the seven regional meetings MEP held with center directors

across the country to gather input into the plan for the national system. The Board engaged in a discussion on how, and to what extent, MEP could get the Centers to align their individual strategic plans with the goals of the national plan.

Several common themes seemed to come out of these regional meetings including:

- best practices for managing a Center;
- the need to develop a national presence – market research and national marketing;
- the need to communicate and share between Centers and regions; and
- resource integration - using the best from the best Centers.

We strongly support MEP's initiative to gain input and support of the center directors before formalizing the MEP strategic plan. We would like to include on future agendas a discussion on the differences among Centers and how to align the system without sacrificing our service to the local manufacturing base.

One of the issues the Board wanted addressed in the strategic plan was the national system's efforts to work with minority-owned businesses. MEP reported that they work with the Department of Commerce's Minority Business Development Agency (MBDA) so the agency is aware that MEP is a resource for smaller firms. We were pleased with the interaction between the two programs and challenged MEP to continue their dialogue with the MBDA to better assist minority-owned manufacturers.

The second major issue we wanted covered in NIST MEP's strategic plan was worker training and skill development. We would like to see in the plan specific mention of enhancing employees' skills (training), and recognizing employees' contributions. MEP

agreed with our recommendation and will make the appropriate additions to include this area.

The Board is very pleased with the progress of the plan since the September 1997 meeting and looks forward to working with MEP to further refine it. We are also extremely pleased with the support MEP has found as a result of the United States Innovation Partnership's Next Generation MEP Working Group's recommendations that the MEP plan is solid and that MEP is a program worthy of their support.

We also found the recently released MEP *Vision Brochure* to be one of the best materials ever produced. We challenge MEP to find ways of distributing this to their state partners, other interested parties and the Centers local boards so they too can see the vision of the program. We can not stress enough how effective this brochure is in communicating the MEP vision.

One of the major thrusts of the MEP strategic plan is stable funding for the program. One of the major hurdles for this was the elimination of the Sunset provision, which denied further funding for Centers after their sixth year of operation.

As was mentioned earlier, the Board supports the modification of this measure, and we are pleased to report that the fiscal year 1998 Authorization Bill (The NIST/TA Authorization Act of 1998) eliminated the Sunset provision. This will not only add stability at the federal level but we believe it goes a long way toward assisting with the stability of funding at the state level as well.

THE UNITED STATES INNOVATION PARTNERSHIP

Board member, Jay Brandinger, also serves as co-chair for the United States Innovation Partnership Working Group exploring the Next Generation Manufacturing Extension Partnership initiative. He was joined by Del Schuh, president, Indiana Business Modernization and Technology Corporation, and co-chair of the USIP working group and Tom Unruh, senior policy analyst, National Governors' Association to brief the Board on the working group's recommendations as it affects the MEP system.

The members of the working group also included: Bob Filka, Michigan Jobs Commission; Jamie Kentworthy, Alaska Science and Technology Foundation; Kris Kimel, Kentucky Science and Technology Council; Doug McKay, South Carolina Department of Commerce; Carolyn Sales, Oklahoma Center for the Advancement of Science and Technology; and Durand Smith, New Mexico Science Advisor to the Governor. Kevin Carr sat on the working group as the federal co-chair.

Governor Christie Whitman presented the Next Generation Manufacturing Extension Working Group report at the National Governors' Association, Economic Development and Commerce Committee in August 1998. This report of the federal/state partnership provides advice to the governors and to NIST on future direction of the MEP program. We were pleased to hear that the report reaffirms the NIST MEP strategies and vision. We also agree with the three key recommendations that came out of the group, including:

- strengthening a state-based system of manufacturing extension,
- leveraging the skills and resources of other organizations, and
- developing support for stable funding.

The Board began a vigorous discussion on the recommendations, there was interest noted in further exploration into working with the Centers to develop a telecommunications infrastructure so that MEP can better deliver services to rural areas. This is a problem in rural states where the Center's manufacturing specialists have to drive hours to reach a client and networking between small firms is at a minimum.

We approve of the efforts to gain more state input into how federal programs are run, and in turn would like to see more commitment from them for the matching funds required. The Board sees this as a major step toward building stable funding from

the states' perspective. The USIP presentation clearly stated that they see MEP as an economic development program and recommends states focus on programs like MEP that offer continued support for industries in their respective states.

The Board felt that MEP should provide data to each state, which is specific to that state and includes the increase or retention of jobs, the gain of capital investment, etc. to justify the state investment.

We noted that the *State Reports* used for educating the federal investors might, with a little adjustment, be effective in communicating to the state investors as well.

The Board agreed that the six areas highlighted by USIP aligned with MEP's focus this fiscal year. The six areas include:

- increasing the focus on manufacturing industry customers (know your market);
- positioning the manufacturing base for the future (move to high-technology);
- improving supply chains, focusing on U.S. markets (domestic market assistance);
- preparing and maintaining a quality workforce, (training and workforce development); and
- providing services regardless of location (urban, suburban, and rural areas)

EVALUATION

The Board spent a great deal of time this year looking at the MEP evaluation process. MEP and the Centers use the evaluation process to assess current performance and identify areas for future improvement. Formal panel reviews had been conducted at NIST MEP in the third and sixth year of a Centers' operation and every other year after the sixth year. Recent Congressional action has changed this review process to every two years after the sixth year of operation. MEP produced a document to evaluate Center operations entitled, "*MEP Criteria for Center Performance Excellence*." All Centers in the network will be using these criteria by September 1998. We see this criteria as an excellent tool for Center self-assessment and it provides the system with a common matrix to measure performance.

Kevin Carr asked the Board to review this new evaluation process. Subsequently to this request, Congress, in its fiscal year 1999 Appropriations Committee Conference Report, directed NIST to "comply with the direction included in the Senate report regarding an independent evaluation of the MEP Program." [Appropriations Committee Conference Report, Report 105-825, October 19, 1998]

The Senate Appropriations Committee relayed, "It is the Committee's understanding that some Centers are more productive and effective than others. In the course of conducting annual, triannual, and reapplication reviews, the Committee expects NIST to rigorously evaluate the MEP

Centers. The Committee directs that NIST provide an annual report to the Committee on the results of its evaluation process, and that NIST form a review panel comprised of knowledgeable and experienced individuals, who are neither employed by the agency nor involved with any of the MEP Centers, to evaluate the results of their MEP Center review prior to transmitting the final report to Congress. The final report should contain the evaluations of the review panel. This report should be provided to the appropriate committees no later than February 1, 1999." [Senate Appropriations Committee Report, 105-235, June 23, 1998]

We are committed to serve on MEP's review panels to familiarize ourselves with the new criteria set out in the *MEP Criteria for Center Performance Excellence*. It is our goal to have each member sit on at least one review in the coming year. MEP will work with the individual members to schedule our participation in the reviews. We would in turn like to be briefed annually on the status of each Center and the follow-up activity conducted since the previous year.

In September 1998, we passed a motion to establish a subcommittee of this Board to sit as the outside body to review the MEP review process. The results of our research will be completed and ready for Congress in 1999.

SYSTEM IMPACTS

The Board believes the MEP has already documented great impact to share with their federal funders. This year we spent time discussing the client and stakeholder need for MEP impact studies. We see continued impact studies are necessary to justify the stakeholder investment, to properly manage Center program performance, and to influence client capital investment.

We strongly support MEP's efforts to produce case study reports that take an in-depth look at the activities carried out by the Centers nationwide. We believe that case studies are the most effective tool to describe the value of MEP assistance with Center client interactions. The newly produced *Workforce Development Case Studies* and the original *MEP Success: A Case Study Approach* are two examples of case study reports. In addition, we also are impressed by the effectiveness of *State Reports* in touting the highlights of each states client impact.

Sam Kramer, Kramer Associates, provided us with the background on the uses of qualitative and quantitative impacts, which provided the framework for our impact discussion. We defined quantitative to include measurements such as sales, labor costs, material costs, inventory level, jobs created, jobs retained, client capital investment, productivity, and customer satisfaction.

Qualitative was defined to include case studies and anecdotal stories. We found that because this data deals with certain measurements, there is a need to have a system and matrix for collecting and analyzing the data. Quantitative data collection depends on client information and may cause undue burden on the manufacturer.

We began our research by looking at how MEP currently collects data. The MEP Census survey collects data from client companies nine months after project completion from a list of client companies provided by each Center. After contact has been made with client companies, the data is gathered, analyzed, and distributed to Centers summarizing the data of their clients, and to MEP summarizing the data of the MEP system. Although we realize there is a need for Centers to select client companies to be surveyed, some firms may not want to be contacted further.

We would like to look further into how all projects could be submitted for data collection and Census select a statistical sample from the total population to survey. The Board sees this as lessening the burden on

client companies because no firm would be surveyed more than once a year. We will have further discussions on this topic. NIST MEP has committed to continuing to review and modify the Census nine-month survey questionnaire utilizing input from the MEP Evaluation Working Group.

A discussion ensued where we suggested that MEP did not lock itself into any one model to determine impact of the program. We noted that MEP's success is in part due to the continual effort to improve the metrics used for evaluation. The Board would like to be kept up to date on the progress made toward increasing the number of client firms willing to participate in the process and any changes made in the data collection process.

WORKFORCE DEVELOPMENT

Small and medium-sized manufacturers are the lifeblood of the U.S. economy. They make up over 99 percent of all U.S. manufacturers, produce more than half of our value-added goods, and employ more than 12.2 million people, or 65 percent of all U.S. manufacturing workers, at wages averaging substantially higher than the retail sector. Many manufacturing companies struggle to improve productivity, quality, and on-time delivery, as well as solve a range of people issues such as employee morale, absenteeism, and turnover. MEP's knowledge, experience, and sensitivity to the needs of small and medium-sized manufacturing firms have helped companies address these problems and find solutions they can afford.

Mark Troppe, manager, MEP People Systems Group, provided us with an in-depth discussion as to how, throughout all of MEP's extension activities, workers issues are central. MEP recognizes the impact that people, culture, and skills have on the competitive abilities of small and medium-sized manufacturers in the United States.

We are pleased to relay that NIST MEP works with its Centers across the country to provide expert advice and service to help smaller manufacturers address their "people systems" needs.

The Board noted that MEP Centers provide direct services to union and non-union firms, helping them address their most critical needs in areas such as production techniques, technology applications, business practices, and a wide range of workforce and workplace assistance activities.

MEP assists clients in aligning and integrating their people practices with the company's strategic direction and goals. MEP Centers often provide services including interventions to attract, retain, and motivate employees to achieve organizational goals. Identifying recruitment sources, assisting with selection guidelines, aligning incentives with strategic objectives, ensuring that employee competencies are clearly defined or outlining clear training and development goals can contribute to overall success of the organization. MEP delivers these services using in-house expertise and by forming partnerships with community colleges and other providers.

Troppe briefed the Board that MEP's efforts to address people systems among small manufacturers were initiated as a result of a partnership between NIST MEP and the U.S. Department of Labor. They are designed to support the creation of a coordinated system of technology and human resources service delivery, so as to contribute to the combined goals of the agencies.

The effectiveness of this collaboration is illustrated by a current MEP/DOL partnership project involving local One-Stop Career Centers. MEP assists DOL by being the voice for SMEs while building the infrastructure for this program. By defining industry needs, assessing the capabilities of available service providers, organizing industry clusters/consortia, cross training staff and joint marketing, MEP and DOL create a win-win relationship. Clients also benefit from this partnership. The more effective infrastructure produces the right workers at the right time and provides a better alignment of available training with industry needs. A discussion of this partnership included the Boards recommendation to find ways to utilize a tracking system to determine any impact of the interaction. Specifically, how many jobs were acquired or retained due to the training offered by the pilot.

We are very interested in worker training and workforce development. This topic came up in many of our discussions during the past year. We are pleased with the progress made by the MEP workforce team and their efforts to work with the Centers and other federal agencies to address the needs of the system. We look forward to hearing more on this subject as the MEP People Systems team progresses.

SUPPLY CHAINS: ISSUES FOR SMALLER MANUFACTURERS

Ed Kwiatkowski, president, Supply America Corporation, briefed the Board on issues facing smaller manufacturers as suppliers of large manufacturers or original equipment manufacturers (OEMs). Supply America was established by the Centers themselves to help establish a bridge between the national reach of supply chains.

We noted that large OEMs are looking for help in dealing with their supply chains. A quote was shared where “Proctor & Gamble saves \$200 million by better managing its supply chain.” Communication from the OEM to the smallest supplier is critical and lacking in today’s market.

Discussions by the Board recognized the need for addressing supply chain issues and the effects the supply chain has on smaller manufacturers. At a later date, we want to explore the specific types of activities and services available to the Centers for the nation’s over 380,000 smaller manufacturers. The Board asked MEP, at a later meeting, to provide an update on what supply chain activities are being undertaken and how the MEP system is addressing the needs of the Centers and their client firms.

Y2K INITIATIVE

The Board invited Steve Thompson, manager, MEP Information Technology Team and the Year 2000 Initiative to discuss the latest MEP activities in the Y2K area. The Board understands that MEP has responded to the demand and developed a toolkit for the system in a very short time frame.

We learned that the *Conversion 2000: Y2K Toolkit* educates Centers who in turn educate the SMEs about the Y2K problem. The tool was released in early May 1998. This program has been highlighted in articles and through training sessions and seminars throughout the country.

We are gravely concerned about smaller manufacturers' awareness of Y2K. Thompson shared with the Board that MEP Centers are currently scheduling and conducting Year 2000 awareness seminars and workshops across the country. Over 1500 companies have attended one of these sessions as of early August 1998. A self-assessment questionnaire and Year 2000 overview information is available directly to smaller manufacturers on the MEP Internet web site at <http://www.mep.nist.gov>.

In addition, MEP reported that it is also preparing a *Conversion 2000: Y2K Self-Help Tool*, a computer-based tool intended for use by SMEs in planning and executing a Year 2000 project with coaching assistance from MEP's manufacturing specialists. These tools, developed by MEP and a core group of Centers for the national system, will help smaller manufacturers determine whether or not they have a problem with Y2K. Smaller manufacturers then have the option of fixing the problem with their own staff or hiring a contractor to fix it. MEP can also assist manufacturers in finding qualified contractors.

We applaud MEP's use of Centers across the country to help in the development of the Y2K tools. We are however concerned that while MEP makes SMEs aware of the problem and what needs to be done to fix it, that the resources will not be there for the smaller firms to do the remediation. The Board has asked MEP to keep them updated on MEP's findings as they work with smaller firms in the Y2K area.

LEAN MANUFACTURING

Another area where MEP and the Centers are working in collaboration is in the area of Lean Manufacturing. We asked MEP to report to us about this area and what kind of impact MEP is hoping to have. Maria Elena Stopher introduced MEP's work in this area. Lean Manufacturing is described as a systematic approach to analyzing design, flow of material, manufacturing process, and information in order to eliminate waste while striving for perfection.

We learned that MEP is developing the training and certification course for MEP manufacturing specialists to become Lean implementers. This curriculum, consisting of one introduction course, five intermediary courses, and one advanced level apprenticeship course, gives manufacturing specialists the knowledge to complete an implementation process to help the manufacturer become lean.

We were briefed that the potential benefits to manufacturers in becoming lean are: waste reduction up to 90 percent, space utilization up to 70 percent, lead time reduction up to 95 percent, productivity improvement 10-40 percent, quality improvement of 25-75 percent and enhancement of team work, communication, visibility, and flexibility in workforce.

As of December 1998, over 400 manufacturing specialists from the Centers, and numerous manufacturers have taken the introductory level lean course. We were impressed that these trained personnel are beginning, in turn, to offer the awareness course to firms. We see that this will increase the number of firms taking the next steps toward implementing lean principles in their facilities.

The Board was pleased to see MEP taking the lead in such a progressive area. The Board shared that it is personally aware of companies today that could benefit from a Lean Manufacturing implementation.

INTERNATIONAL SERVICES

The Board is aware that export services, while not the most requested service of the MEP Centers, are critical for many firms' success. Margaret Phillips, managing MEP's international activities, led a discussion about two of MEP's international activities; 1) import/export activities explaining how MEP focuses on client assistance, and 2) assessing what other countries are doing to develop a MEP like systems approach to their manufacturing base. The Centers themselves are primarily focused on assisting their customers in the area of export and international trade relationships.

The Board learned how MEP works with resources already available to smaller firms to help them become import/export ready – some of which are within the Department of Commerce. The Board commends MEP for working in concert with the Department on this initiative and making the best use of resources currently available to smaller firms.

To provide specifics on what Centers are doing, two Centers were invited to share activities at the local level and some lessons learned.

Demetri Giannisis, director of the Chicago Manufacturing Center (CMC), covered a few activities that CMC is doing in the international arena. The Board recognized that growing companies must look past their local market in order to expand. It is important that MEP stay involved in international activities because of the increased international regulation and unpredictability of outsourcing to new exporting firms. One concern of some of CMC clients is protection of intellectual property, which can be solved through international alliances.

Giannisis then explained the TransAtlantic business event the CMC hosted in Chicago. It is an international business expo where creating global partnerships is the goal. The Chicago meeting, the first ever held in the U.S., attracted 100 U.S. and 100 European companies in four industries: biotechnology, electronics, food processing, and machinery. There were about 1000 individual meetings between companies to discuss potential distribution and licensing agreements, joint ventures, mergers and other business arrangements.

Nicholas Karvonides, Maine MEP, lead manufacturing specialist for International Initiatives, discussed how Maine MEP looks at international development as a passport to foreign technology and foreign business ventures. A brief synopsis was given on the products and services that are offered by Maine MEP to globally competitive firms.

Maine bases its projects on partnerships with other state agencies and the support that they provide.

The Board learned that the Maine MEP began trade activities only about one year ago and has received \$150,000 in revenues to date. Maine MEP's customers are prepared to export, have the management commitment to improve, and average less than ten employees.

A discussion ensued in which the Board asked if MEP sees itself as occupying a certain niche in offering these services to SMEs. MEP reported to us that it is but one of the services Centers offer to firms in their region that has this particular need. All of the Centers provide their services as needed. We were concerned that the firms must be import/export ready before MEP would work with them. MEP reported that the Centers assess the receptiveness of client firms in this area using the same methodology as in any other project. The Board also raised the question of what services the German Fraunhofer Centers offer and how do they differ from the MEP. MEP reported that they traditionally help transfer high-level technological innovation to large firms. We were pleased that there are Centers in the MEP system proactively working to help smaller companies with export assistance.

NATIONAL MARKETING EFFORT

The Board requested to hear what MEP is doing to market its services to smaller firms. English Drews, manager, Communications and Marketing Support Group (CMSG), provided an overview of the MEP national marketing effort. The MEP Communication and Marketing Support Group exists to facilitate marketing efforts so that smaller manufacturers know about the national MEP network and their local Center; want to use the Centers in the network; and consider it essential to achieving high-performance manufacturing. MEP plans to increase awareness of the national system to all MEP stakeholders, increase MEP's overall market penetration, and develop an integrated marketing and communication system. CMSG's target customers are either direct recipients of products, tools, messages, and marketing activities; or are communication vehicles to other audiences. During 1996 and 1997, CMSG generated more than 6,500 leads to Centers within 15 months.

Centers within the system have identified specific challenge areas to be addressed by CMSG. The challenge areas include:

- program awareness and understanding;
- national brand identity and local Center identity;
- integrated marketing and communication activities;
- standardization and consistency in a decentralized system;
- communication to a variety of audiences; and
- establishing a clear, concise message.

Also covered were the specific areas in the operations plan that addresses the needs of Centers. MEP strives to create a marketing synergy through a national system and presence that leverages our marketing resources and efforts, creates economies of scale and reduces Center development costs, integrates a common image that benefits Centers, and is recognized and respected by manufacturers.

The Board's discussion that followed complemented MEP for working to increase their national awareness. The Board wants the national marketing efforts to continue to be aligned with the local Center marketing efforts. We support the national marketing managers working group and see this as a good way to ensure this alignment occurs.

The Board is interested in looking at ways to set up a formal process to determine if the leads generated at trade shows, as the result of direct mail and via the 800 number turn into viable projects with firms. We are very impressed with the materials created by and plans for the national marketing efforts. We would at some point appreciate being briefed on the market data collected and analyzed by Michael E. Stone, a private marketing consultant. As a result of the marketing briefing, the Board has requested a copy of the materials sent out at the trade shows and a copy of the MEP Speakers' Kit once it is updated.

We also would like to stress that each Board member could help to raise the awareness of the program in his or her state and share the many good things this program is doing. The Board shared experiences with one Center going to the Hill to share its impacts with their federal investors. This doubled as an awareness builder in the state and at the local level as well. The Board supports Centers' efforts to share their impacts with their investors.

AREAS FOR FURTHER REVIEW IN 1999

The MEPNAB has identified a number of agenda topic areas for 1999.

- Follow-up on changes in data collection, assessment and impact.
- Update on supply chains and what services are available for Centers to take advantage of for their clients.
- Work with NIST to explore ways to get technologies from the laboratories out to smaller manufacturers.
- Discuss ways to link with the NIST Visiting Committee on Advanced Technology.
- A status report on the subcommittees work on reviewing the MEP evaluation process.
- Continued dialogue on resource integration and Centers' service mix – what should be offered nationally.

- Report on the market analysis data research and its applications.
- A focused discussion on how the system can best reach the more rural and otherwise unreachable firms.
- Raising awareness, a review of the past years activities and what more can be done to make smaller manufacturers aware of the services offered by their local Centers.

We look forward to exploring these and many other areas of critical importance to the nation's smaller manufacturers in the year to come.